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INTERVENTIONAL CARDIOLOGY FELLOWS AND PROCEDURAL COMPLICATIONS AFTER PERCUTANEOUS CORONARY INTERVENTION

i2 Poster Contributions
Ernest N. Morial Convention Center, Hall F
Monday, April 04, 2011, 3:30 p.m.-4:45 p.m.

Session Title: Outcomes/Operator Volume/Public Reporting/Guidelines
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Background: The Accreditation Council for Graduate Medical Education (ACGME) requires on-site cardiac surgery at primary and satellite training hospitals for interventional cardiology fellows-in-training (ICFIT) - in part due to concerns for higher complication rates. However, PCI complications have decreased over time and greater proportions of PCI procedures are being performed at hospitals without cardiac surgery, which may limit the number of PCIs available for ICFIT training.

Methods: Clinical characteristics and in-hospital outcomes were compared between patients undergoing PCI at our training hospital with vs without the presence of an ICFIT. The primary endpoint was a composite of all cath lab, general clinical, vascular, and bleeding complications collected by the National Cardiovascular Data Registry (NCDR). The relationship between ICFIT presence and the primary endpoint was evaluated using logistic regression.

Results: During the study period 7/2007 to 4/2010, 2605 patients underwent PCI: 1638 PCIs were performed with an ICFIT and 967 without an ICFIT. Patients in the ICFIT group were slightly older (65 vs 63 years, p=0.004), more likely to have prior PCI (46% vs 40%, p<0.004), and less likely to be treated for STEMI (11% vs 27%, p<0.001). The primary endpoint occurred with similar frequency in the ICFIT and non-ICFIT groups (13% vs 15%, p=0.268). NCDR bleeding was similar between groups (3.1% vs 3.7%, p=0.355) whereas length of stay after PCI (2.1 vs 2.6 days, p<0.001) and in-hospital death (1.0% vs 2.5%, p=0.003) were lower in the ICFIT group. After adjusting for 17 pre-PCI clinical and demographic variables, ICFIT presence remained unrelated to PCI complications (OR 0.92, 95% CI 0.71-0.92, p=0.532). Findings were similar after repeating the analysis among PCI patients without STEMI.

Conclusions: ICFIT presence during PCI is not associated with NCDR-defined adverse clinical outcomes or bleeding. These findings have important implications for ACGME program requirements. ICFIT training at hospitals without cardiac surgery back-up may be a safe and reasonable extension of training when experienced academic interventionalists are performing PCI at satellite hospitals.